

SOUTH SAN FRANCISCO BAY SHORELINE PROJECT – REACH 2 AND 3

Prepared by the Shoreline team
04 April 2019



US Army Corps
of Engineers®





SPEAKERS



LTC David Kaulfers, P.E., PMP, Project Manager, United States Army Corps of Engineers

Tessa Beach, Ph.D., Environmental Section Chief, United States Army Corps of Engineers

Ngoc Nguyen, P.E., Deputy Operating Officer, Valley Water

Chris Barr, Refuge Complex Manager, U.S. Fish & Wildlife Service

Ken Davies, REM, CSEM, CESCO, Sustainability & Compliance Manager, City of San Jose

Brenda Buxton, Project Manager, CA State Coastal Conservancy

LTC David Kaulfers, P.E., PMP, Project Manager, United States Army Corps of Engineers

Key:

P.E. – Professional Engineer

PMP – Project Management Professional

Ph.D. – Doctor of Philosophy

REM – Registered Environmental Manager

CSEM – Certified Safety Environmental & Emergency Manager

CESCO – Certified Environmental and Safety Compliance Officer



PROJECT TEAM



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Chief's Visit - 2006



Chief's Report – Dec 2015



Appropriations Sub-Committee – 2014, Chief of United States Army Corps of Engineers committing to Chief's Report



PROJECT TEAM



Since January 2017 – Meeting Every 4 to 8 weeks,
15 Times, 12Jan, 30Mar, 5May, 20Jun, 27Jul, 29Aug, 30Oct, 31Oct,
27Nov, 17Apr18, 12Jul18, 13Sep18, 8Nov18, 23Jan19, 19Mar19



PROJECT

▪ Flood Risk Management (FRM)

- 4-mile long levee
- Manages risk for population of ~5,500, ~1,100 structures, & regional wastewater facility

▪ Ecosystem Restoration

- 2,900 acres of tidal wetlands including ecotone

▪ Recreation

- Provides key connections to San Francisco Bay Trail & viewpoints

Total Project First Cost

\$174 million (Oct 2015 Price Level)

FRM BCR (@3.375%)

Sea Level Change scenario

Low/Intermediate/High:

4.2 / 5.3 / 9.4 (2.9 - intermediate sea level change at a 7% discount rate)

Ecosystem Restoration

48,308 habitat units; 2,900 acres

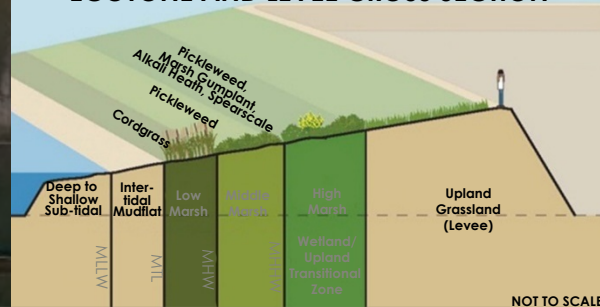
Monitoring/Adaptive Management

Recreation BCR (@3.375%) 1.1

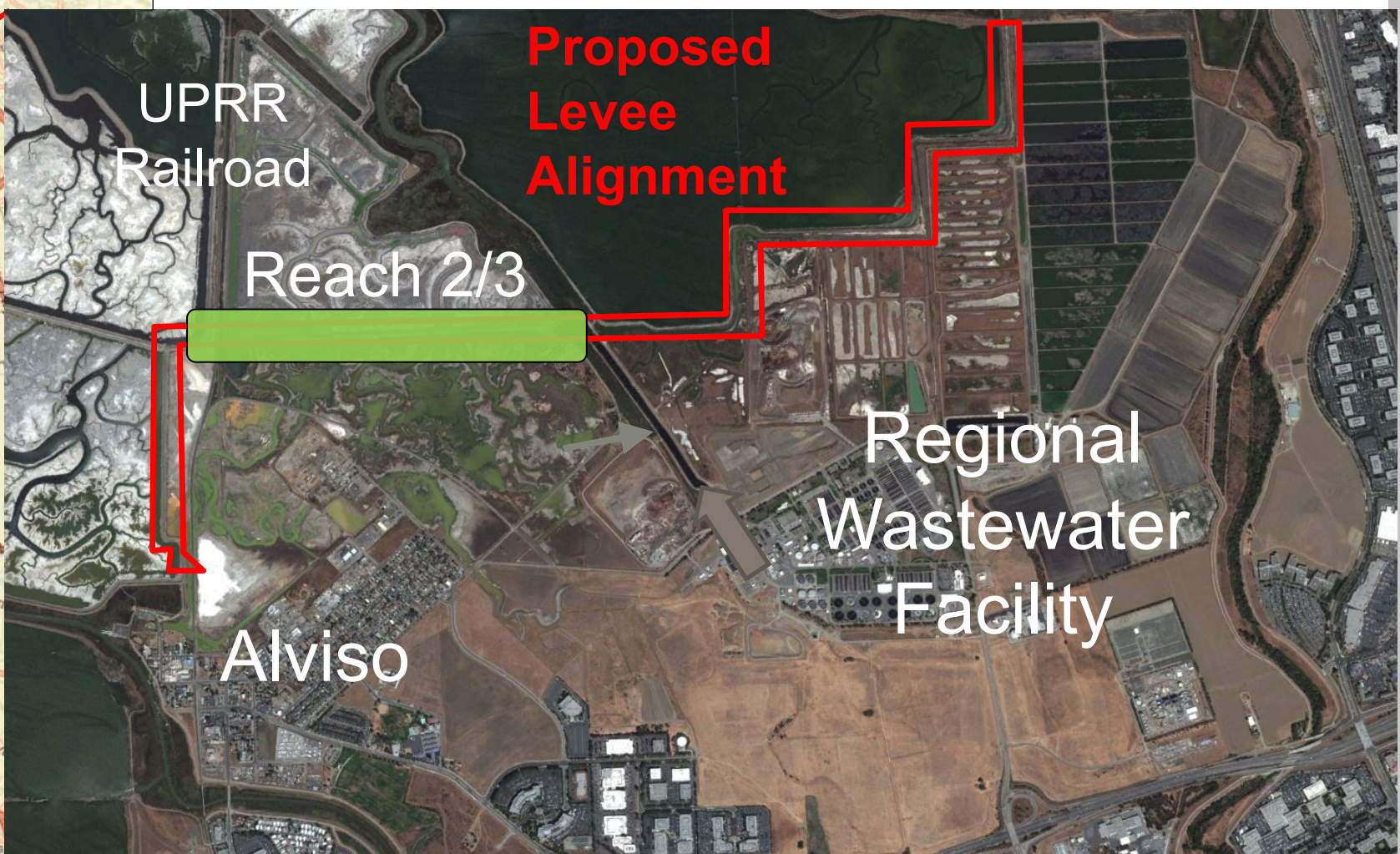
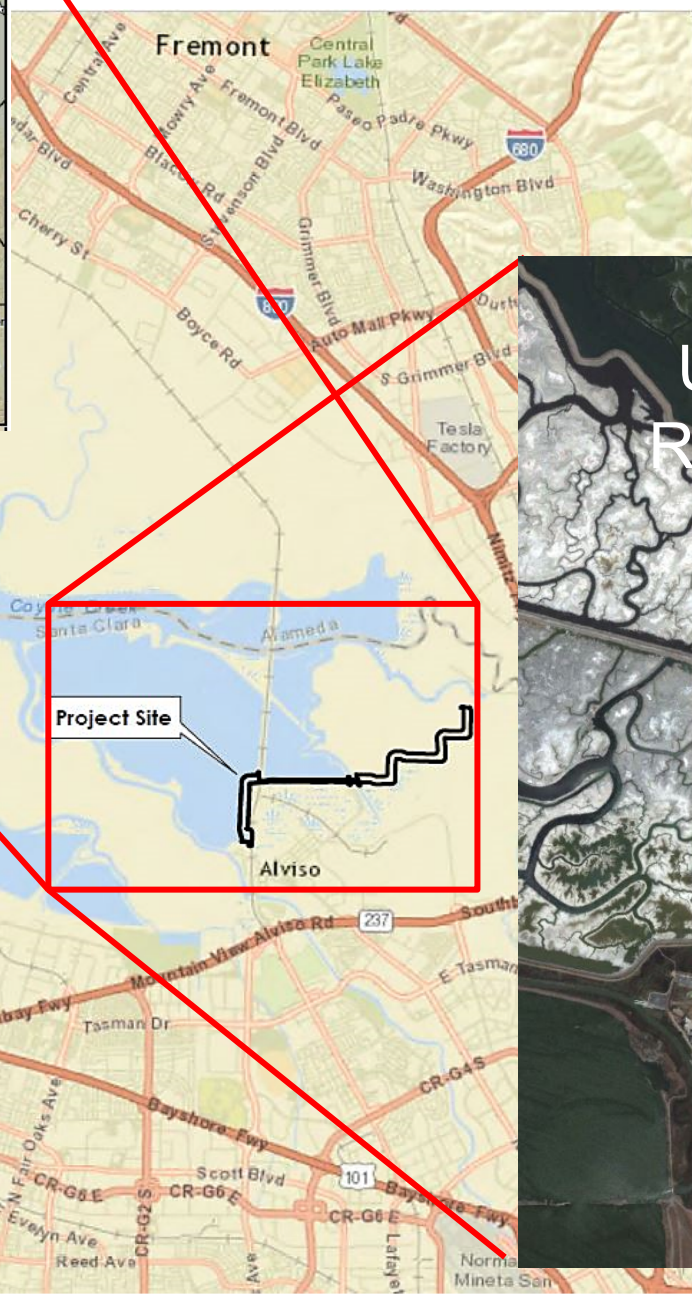
BCR —
Benefits
to Cost
Ratio

- Levee
- Ecotone (transitional habitat)
- Tidal Marsh Restoration
- 1 Union Pacific Railroad Crossing
- 2 Artesian Slough Tide Gate & Pedestrian Bridge

ECOTONE AND LEVEE CROSS SECTION



PROJECT LOCATION





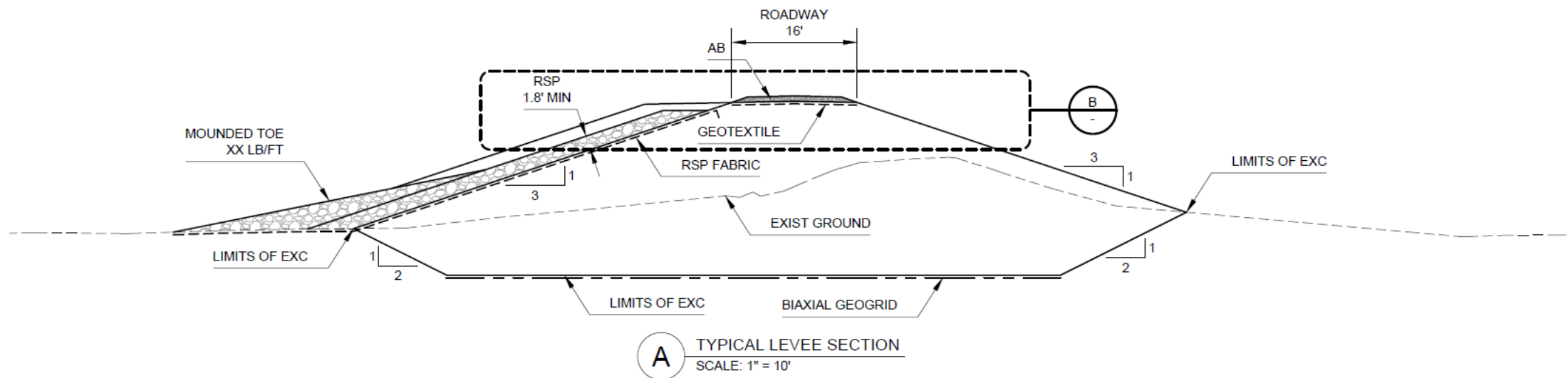
CZMA-
Coastal
Zone
Manag
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Act

REACH 2/3 LEVEE IMPACT ANALYSIS

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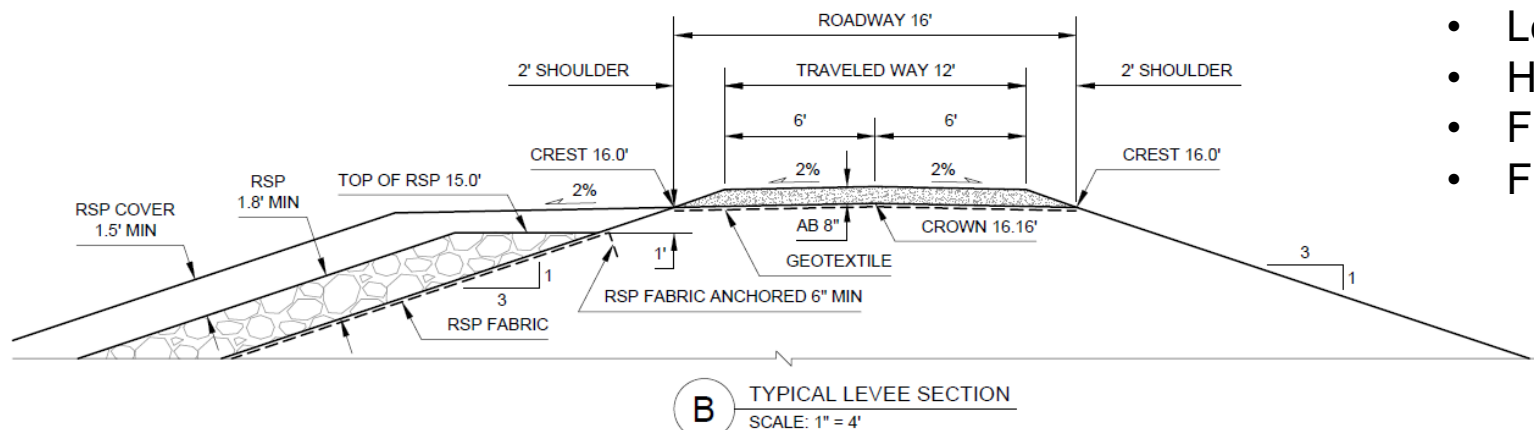


TYPICAL LEVEE CROSS SECTION



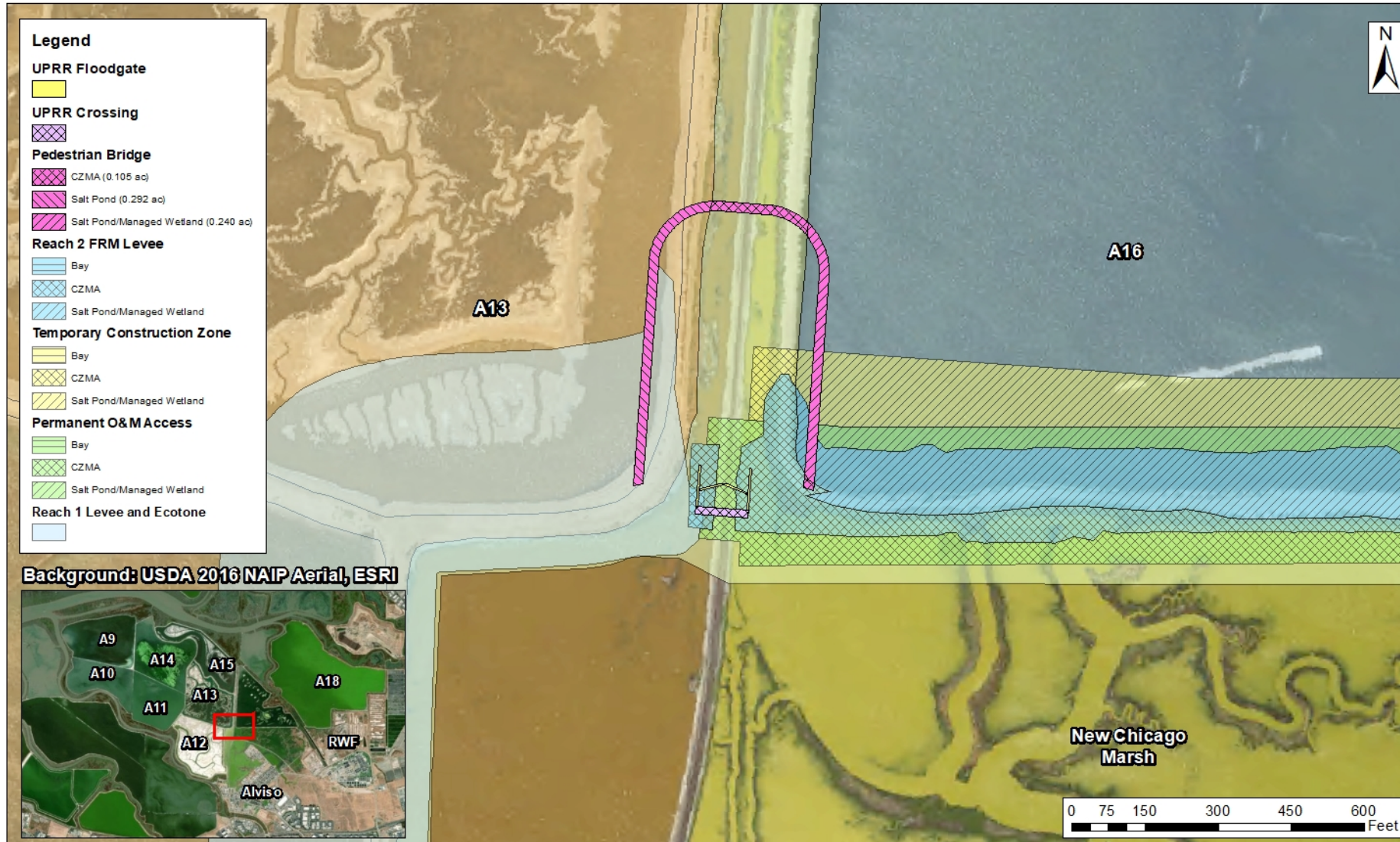
Reach 2/3 Information

- Length – 5,200 feet
- Height – 15.2 feet post-settlement
- FRM levee area – 19.52 acres
- Fill Volume – 410,000 cubic yards





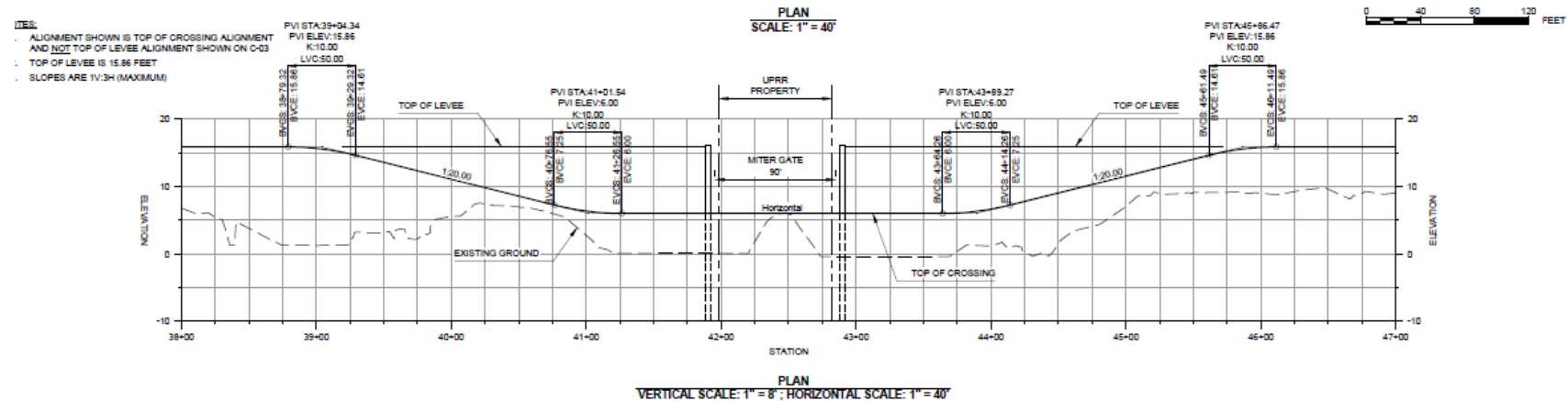
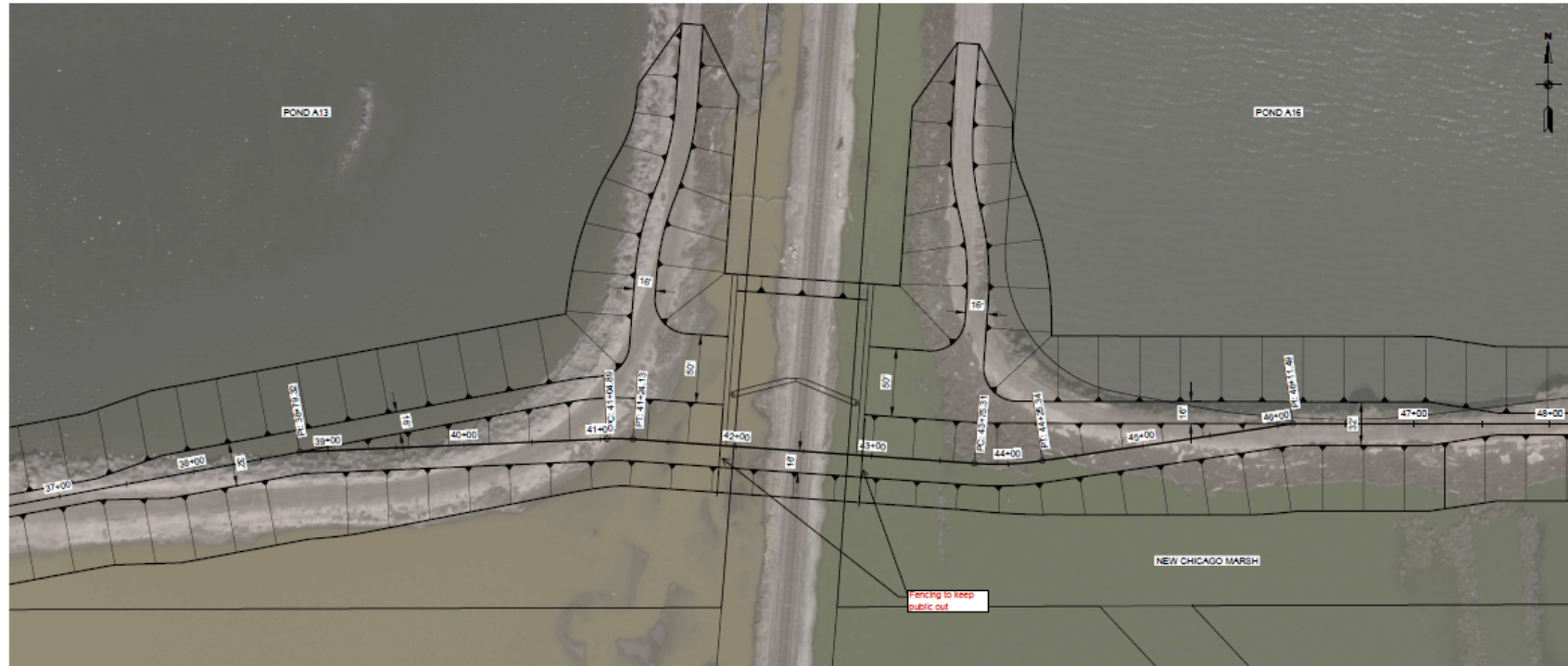
UPRR (RAILROAD) PEDESTRIAN BRIDGE IMPACT ANALYSIS





UPRR RAILROAD CROSSING CONCEPTUAL DESIGN (SUBJECT TO CHANGE)

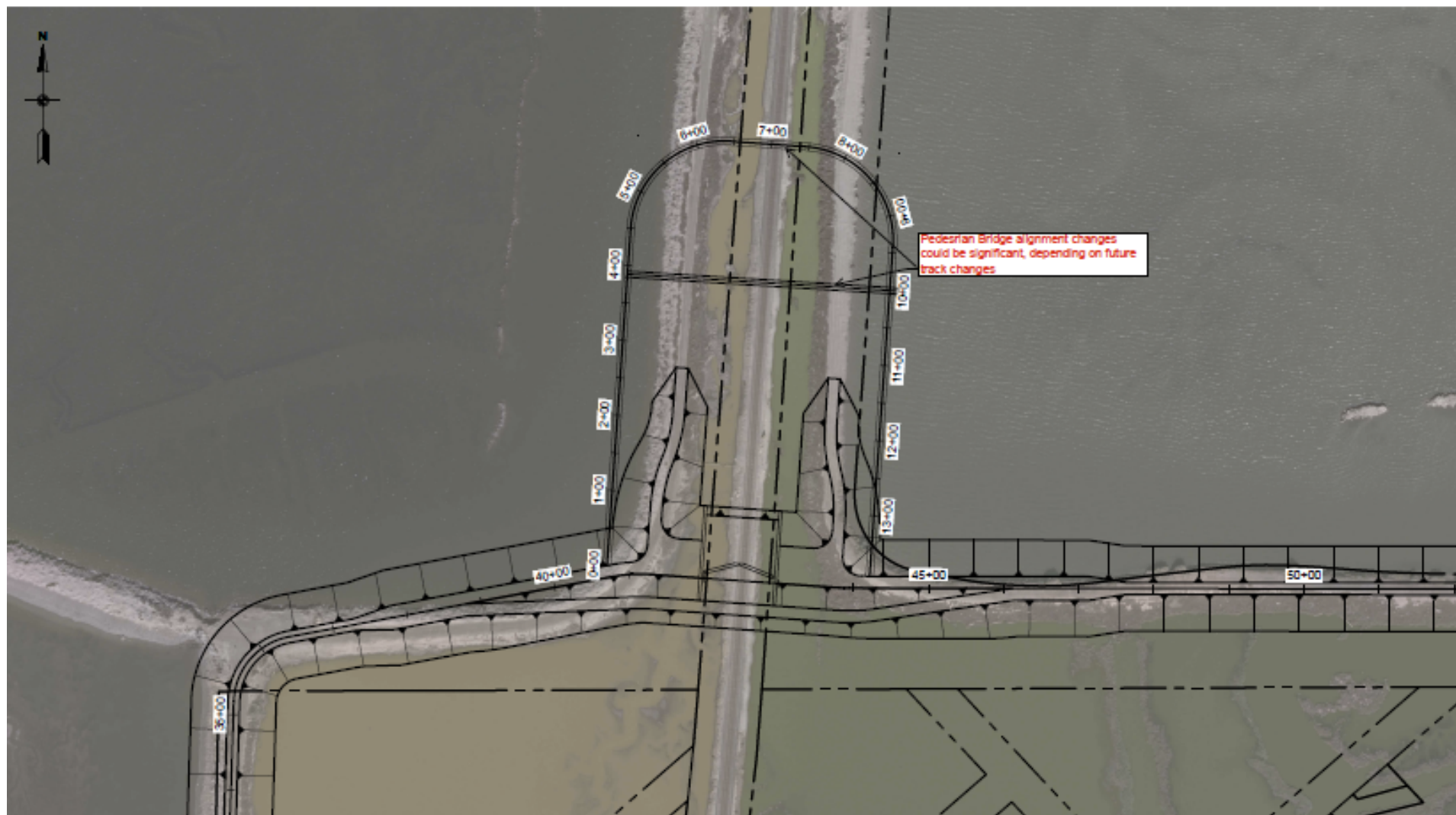
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PEDESTRIAN BRIDGE CONCEPTUAL DESIGN (SUBJECT TO CHANGE)

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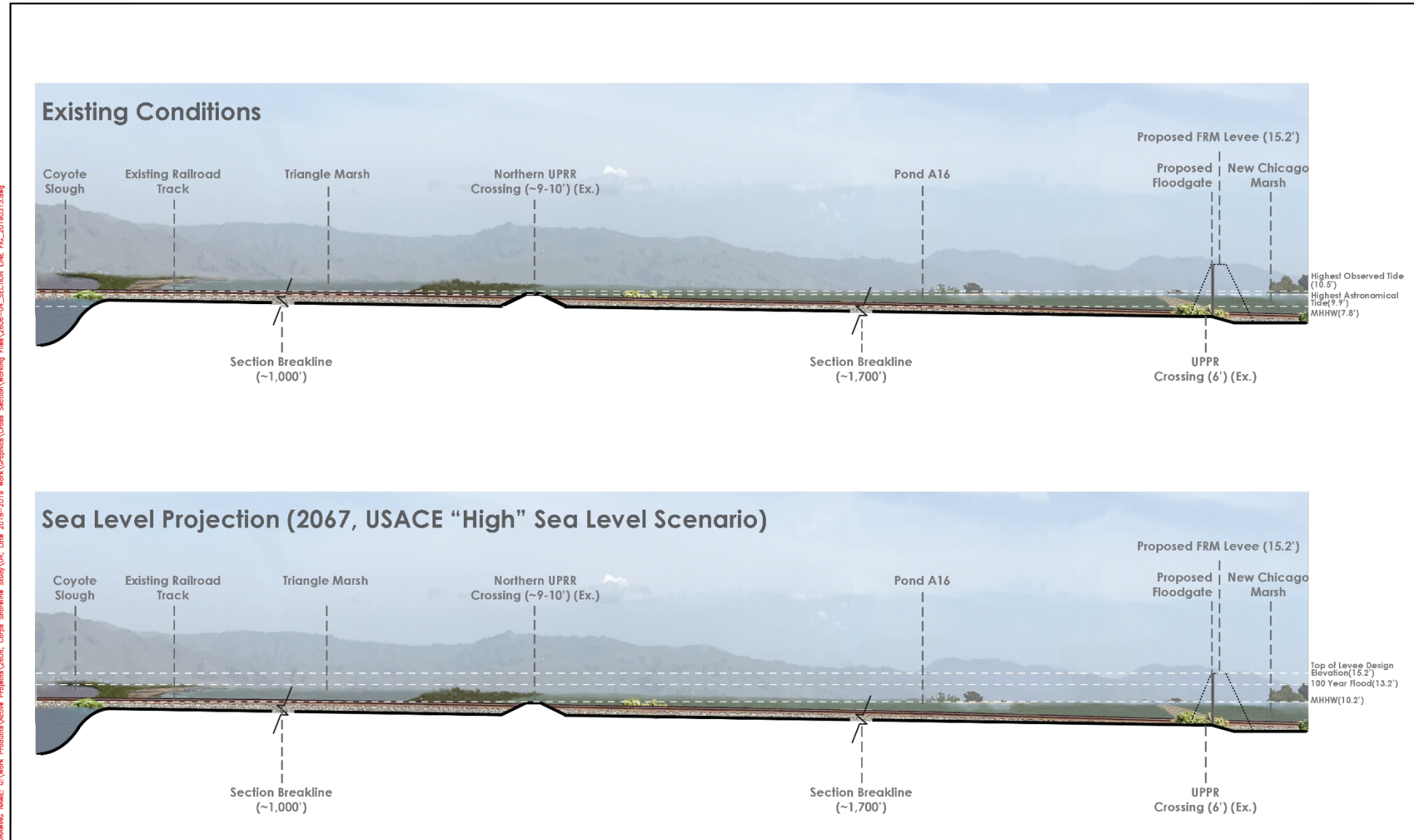


PLAN
SCALE: 1" = 80'

0 80 160 240 FEET

INTERIM FLOOD PROTECTION AT UPRR CROSSING

DRAWING NAME: C:\Work Products\Active Projects\2606, Corps Shoreline Study\04, Lata 2018-2019 Work\Graphics\Cross Section\Working Files\2606-04_SECTION LINE FR_20190315.dwg





PROJECT TEAM



Ngoc Nguyen, P.E., Deputy Operating Officer, Valley Water

- Provides natural flood risk management for north San Jose
- Provides resilient flood protection with adaptation for sea level change
- Manages risk for Alviso community of 2,500 residents
- Manages risk for 3,000 commuters
- Protects the Regional Wastewater Facility
- Protects Valley Water's Advanced Water Purification Center



Photo – Chris Benton



PROJECT TEAM



Chris Barr, San Francisco Bay National Wildlife Refuge Deputy Complex Manager, U.S. Fish & Wildlife Service

- Meets refuge purposes
- Facilitates tidal wetland restoration
- Enhances opportunities for wildlife-dependent recreation





PROJECT TEAM



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Ken Davies, REM, CSEM, CESCO,
Sustainability & Compliance Manager, City of
San Jose

- Protection of Critical Public Infrastructure
- Wastewater Treatment for 1.5 Million
- 14 Million Gallons/Day Recycled Water
- City's Support includes Real Property





PROJECT TEAM



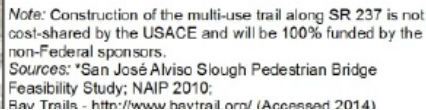
Brenda Buxton, Project Manager,
State Coastal Conservancy

- Wetlands Restoration: 2,900 acres
 - South Bay Salt Ponds Project
 - Recreation - Trails



EXISTING RECREATION ACCESS







PROJECT TEAM



LTC David Kaulfers, P.E., PMP, USACE Project Manager

- Initial Construction is Fully Funded on Federal Side through Bipartisan Budget Act of 2018
- Need to “Move Dirt”
- Need to demonstrate that we can build this project
- Challenges in getting Environmental Documents will cause doubt in Appropriations staff





PROJECT TEAM



Looking Back

- February 2018 – Reach 1 Consistency Notification Issued – Thank You!!!

Way Forward

- August 2019 – Reach 1 Construction Award (Early)
or
- January 2020 – Reach 1 & Reach 2/3 Construction Award
- Fall 2021 – Fall 2023 – Remaining Flood Risk Mitigation
- Fall 2023-Fall 2026 - Ecotone/Breach
- 2026-2032 – Breach Remaining 6 ponds
- 2042 – Monitoring Complete





PROJECT TEAM



We Ask for:

Commission to Concur with the Consistency Determination as The United States Army Corps of Engineers and The United States Fish and Wildlife support the Staff Recommendation as written.